

Claims

1. Analogue amplifier with multiplexing capability comprising:

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(a) an input port (2) for receiving an analogue signal (S);

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(b) a test input port (3) for receiving a test signal (T);

(c) an output port (5);

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(d) a control input (4) for receiving a test control signal (CTRL-mode) switching the amplifier (1) between a normal amplifying mode and a test mode;

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(e) wherein in the normal amplifying mode the analogue signal (S) is amplified and transmitted via said output port (5);

(f) wherein in the test mode the test signal (T) is routed to said output port (5).

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2. Analogue amplifier according to claim 1, wherein an amplifying transistor (6) is provided, having:

a first terminal (7) switched to the said signal input (2) in the normal amplifying mode,

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a second terminal (9) which is connected to the output port (5) of the said amplifier (1) and to a load device (14) which is switched to a first supply voltage (VDD) in said normal amplifying mode, and a third terminal (8) connected to a tail current sink.

3. Analogue amplifier according to claim 2 wherein the tail current sink comprises a transistor (17) with:

5 a first terminal (20) switched to a bias voltage in said normal amplifying mode and to a second supply voltage (V_{ss}) in said test mode.

4. Analogue amplifier according to claim 2 wherein the
10 load device (14) connected to the amplifying transistor (6) is switched to the test input (3) in the said test mode.

5. Analogue amplifier according to claim 1 wherein the
15 amplifier is a fully differential amplifier.

6. Analogue amplifier according to claim 1 wherein the test signal is generated by a built in test pattern generator.

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7. Analogue amplifier according to claim 1 wherein the test signal is applied via a pad from an external test pattern generator.